

ABSTRACT OF THE DISCLOSURE

A pleated filter cartridge for filtering liquids including an annular filter element having a filter material which is a thin non-perforated non-woven material of flash-spun plexifilamentary high-density polyethylene fibrils, the filter material having a pressure drop of less than 4 psid at a flow rate of 10 gal/hr and a filtration efficiency of at least 98% of 1-2 micron particulates at a pressure differential of 30 psid. The filter material preferably has a mean flow pore size greater than 4 microns while its normal pore-size filtration rating is 1 micron, and preferably has a thickness of less than about 0.15 mm, most preferably less than or equal to about 0.13 mm. The filter element preferably has two layers, including a mesh layer, preferably of a low-density polyethylene. The mesh most preferably has a softening temperature range below the lower end of the softening temperature range of the high-density polyethylene filter material, and is tack-point interconnected to the filter material without having compromised the filter material.

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